Clean Version of the Amended and New Claims

8. (Amended) A method for classifying a speech signal, the method comprising the steps of:

extracting a parameter from the speech signal;

estimating a noise component of the parameter;

removing the noise component from the parameter to generate a noise-free

parameter;

comparing the noise-free parameter with a pre-determined threshold; and

associating the speech signal with a class in response to the comparing step.

11. (Amended) The method of claim 8 wherein a plurality of parameters are extracted to

classify the speech signal.

20. (Amended) A method for processing a speech signal, the method comprising the steps of:

extracting a set of speech parameters from the speech signal;

forming a set of noise-free parameters based on the speech parameters;

comparing each of the noise-free parameters with each corresponding threshold of a set of

thresholds; and

classifying the speech signal based on the comparing step.

22. (Amended) The method of claim 20, wherein the forming step comprises:

estimating a noise component of the speech signal; and

removing the noise component from each of the speech parameters.

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24. (New) The method of claim 11, wherein the plurality of parameters include a spectral tilt parameter, a pitch correlation parameter and an absolute maximum parameter.

25. (New) The method of claim 11, wherein the removing step removes the noise component from each of the plurality of parameters to generate a plurality of noise-free parameters.

26. (New) The method of claim 25, wherein the comparing step compares each of plurality of noise-free parameters with each of a plurality of a corresponding pre-determined thresholds.

27. (New) The method of claim 8, wherein the step of removing the noise component includes applying weighting to the parameter.

28. (New) The method of claim 27, wherein weighting the parameter includes subtracting a background noise contribution.

29. (New) The method of claim 28, wherein the threshold is unaffected by the background noise contribution.

30. (New) The method of claim 20, wherein the plurality of parameters include a spectral tilt parameter, a pitch correlation parameter and an absolute maximum parameter.

31. (New) The method of claim 22, wherein each threshold of the set of thresholds is unaffected by the noise component.

32. (New) A speech coding device for classifying a speech signal, the speech coding device comprising:

a parameter extractor module configured to extract a parameter from the speech signal to be used for classifying the speech signal;

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a noise estimator module configured to estimate a noise component of the

parameter;

a noise removal module configured to remove the noise component from the

parameter to generate a noise-free parameter;

a comparator module configured to compare the noise-free parameter with a pre-

determined threshold; and

a classification module configured to associate the speech signal with a class in

response to the comparator module.

33. (Amended) The speech coding device of claim 32, wherein a plurality of parameters

are extracted to classify the speech signal.

34. (New) The speech coding device of claim 33, wherein the plurality of parameters

include a spectral tilt parameter, a pitch correlation parameter and an absolute maximum

parameter.

35. (New) The speech coding device of claim 33, wherein the noise removal module

removes the noise component from each of the plurality of parameters to generate a plurality of

noise-free parameters.

36. (New) The speech coding device of claim 35, wherein the comparator module

compares each of plurality of noise-free parameters with each of a plurality of a corresponding

pre-determined thresholds.

37. (New) The speech coding device of claim 32, wherein the noise removal module

applies weighting to the parameter.

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38. (New) The speech coding device of claim 37, wherein weighting the parameter includes subtracting a background noise contribution.

39. (New) The speech coding device of claim 38, wherein the threshold is unaffected by the background noise contribution.

40. (New) A computer program product for classifying a speech signal, the computer program product comprising:

code for extracting a parameter from the speech signal;

code for estimating a noise component of the parameter;

code for removing the noise component from the parameter to generate a noise-free parameter;

code for comparing the noise-free parameter with a pre-determined threshold; and

code for associating the speech signal with a class in response to the code for comparing.

41. (New) The computer program product of claim 40, wherein a plurality of parameters are extracted to classify the speech signal.

42. (New) The computer program product of claim of 41, wherein the plurality of parameters include a spectral tilt parameter, a pitch correlation parameter and an absolute maximum parameter.

43. (New) The computer program product of claim of 41, wherein the code for removing removes the noise component from each of the plurality of parameters to generate a plurality of noise-free parameters.

44. (New) The computer program product of claim of 43, wherein the code for comparing compares each of plurality of noise-free parameters with each of a plurality of a corresponding pre-determined thresholds.

45. (New) The computer program product of claim of 40, wherein the code for removing includes code for applying weighting to the parameter.

46. (New) The computer program product of claim of 45, wherein the code for applying weighting includes code for subtracting a background noise contribution.

47. (New) The computer program product of claim of 46, wherein the threshold is unaffected by the background noise contribution.

Marked-Up Version of the Amended Claims

8. (Amended) A method for classifying a_speech signal, the method comprising the steps of:

(a) receiving a speech-related signal at a processing unit;

(b) providing extracting at least one a parameter to be used for classifying from the speech signal;

(c) estimating a noise component of the parameter;

(d) removing the noise component from the parameter to generate a noise-free parameter;

(e) comparing the noise-free parameter with a set of at least one pre-determined threshold; and

(f) associating the speech signal with a class in response to the comparing step.

11. (Amended) The method of claim 8 wherein at least one a plurality of parameters is are derived extracted to classify the speech signal.

20. (Amended) A method for processing a speech signal communication whereby influence from speech-related noise is reduced, the method comprising the steps of:

(a) receiving a digital speech-related signal at a speech processing device;

extracting a set of speech parameters from the speech signal;

(b) forming a set of homogenous noise-free parameters based on the speech parameters;

(c) comparing each of the noise-free parameters with each corresponding threshold of a set of thresholds; and

(d) classifying the speech signal based on the comparing step.

22. (Amended) The method of claim ~~21~~ 20, wherein the forming step comprises:

~~(b1)~~ estimating a noise component <u>of the speech signal</u>; and

~~(b2)~~ removing the noise component <u>from each of the speech parameters</u>.

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